# Özgür Eser Akdemir

Ankara, Turkey

Date of Birth : April 5<sup>th</sup>, 1977 Nationality : Turkish

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## **Education**

Master of Science Degree 1998-2001

Thesis Title: "Mobility Management in Wireless Networks: Handover Issue"

Electrical and Electronics Engineering Department, Middle East Technical University, Ankara, Turkey

Bachelor of Science Degree 1994-1998

Electrical and Electronics Engineering Department, Middle East Technical University, Ankara, Turkey

## Language Skills

Turkish : Native English : Professional German : Basic

# **Professional Experience**

**Systems Engineer**, Full-time

Sep 2012 - Present

# <u>TÜBİTAK UZAY, Scientific and Technological Research Council of Turkey, Space Technologies Research Institute</u> (www.uzay.tubitak.gov.tr)

Worked on various areas including PLM, ALM, Systems Engineering activities and CMMI.

- Product Lifecycle Management (PLM)
- Led the adoption of ARAS Innovator platform as the PLM solution.
- $Responsible \ for \ administration, \ training \ and \ end-user \ support \ for \ ARAS \ Innovator \ (11sp9, \ 11sp15, \ 12sp9).$
- Application Lifecycle Management (ALM)
- Led the adoption of IBM Jazz platform as the ALM solution within the institute.
- Responsible for deployment and configuration of IBM Jazz Products within many projects as well as administration, maintenance, training and end-user support. These IBM Jazz products (5.0.2, 6.0.1, 6.0.3) include Rational DOORS 9.x and DOORS Next Generation (DNG), Rational Team Concert (RTC), Rational Quality Management (RQM), Rational Publishing Engine (RPE), Rhapsody for Systems Architect.
- Used Rational Publishing Engine for highly customized document generation from requirements artifacts (DNG) and test plan artifacts (RQM) by designing RPE templates and coding VBA macros. Developed a Qt/C++ automation application for batch task processing to be used with this tool, which gets an input of a list of the artifacts whose Word outputs to be generated and fetches RPE without user intervention, saving a lot of time and effort at document delivery milestones.
- Systems Engineering Activities
- Worked on satellite project artifacts including requirement, verification and design documents as a contributor and as a reviewer.
- Contributed to the development of various systems engineering processes (requirements engineering, system architecture design), utilizing ECSS-E-ST-10C and ISO/IEC 15288.
- Organized trainings given on various Systems Engineering topics by various companies such as Applied Space Systems Engineering, Verification and Validation for Space Systems, Applied Project Management for Space Systems (by TSTI), Systems Engineering (by PPI)
- Prepared and gave training on use-case driven system development.
- Prepared and gave training on Business Process Management Notation (BPMN).
- CMMI
- Involved in CMMI SCAMPI-A activities as an Appraisal Team Member, focusing on engineering process areas.
- Miscellaneous
- Developed an ASP.NET MVC application which verifies that the pin-to-pin connection information in various harness Excel sheets matches correctly.

## Software Engineer, Full-time

Feb 2010 - Sep 2012

## TÜBİTAK UZAY, Scientific and Technological Research Council of Turkey, Space Technologies Research Institute

## (www.uzay.tubitak.gov.tr)

Participated in the development of backup flight software for Gokturk-2 satellite's primary onboard computer which runs GreenHills Integrity OS on an MPC8260 processor. In this context;

Adopted, tailored and implemented some of the ECSS-E-70-41A PUS services, including Housekeeping and Data Reporting Service, On-Board Monitoring Service and On-Board Operations Scheduling Service. Used IBM Rational Rhapsody modelling tool with its out of box OXF framework with C++.

### Software Engineer, Full Time

May 2005 - Jan 2010

### STM Inc. (www.stm.com.tr)

Participated in the "Tank Command and Control Information System" project. In this context;

- Developed C++ modules for Curtiss-Wright Freescale SVME/DMV-183 Dual PowerPC 7447A and VxWorks 6.3 OS.
- > Designed and developed data communication infrastructure between two identical processors, which makes it possible to share C++ objects between their address spaces via shared memory using VxMP.
- > Developed an IP sniffing module enabling the software to capture packets between two legacy modules, extracting necessary command and control data. For this purpose, used a port mirroring switch and VxWorks BPF (Berkeley Packet Filtering) utility.
- > Developed encoding and decoding modules for about 70 messages designed in VMF (Variable Message Formatting), as dictated by MIL-STD-2045-47001B and MIL-STD-6017B.
- Developed semi-automatic code generation tool for VMF encoding/decoding functions. Developed using C#. The tool gets input from VMF structure tables in MS Word and generates output as C++ and C# code, based on the target platform.
- Evaluated in-memory databases. Experienced with McObject's eXtremeDB.

### Software Engineer, Full Time

Nov 2003 - Apr 2005

### MİKES Inc. (Later acquired by ASELSAN Inc.)

Worked with MS Visual Studio .NET 2003 Managed C++ to develop various simulation applications.

# Software Developer

May 1998 - Jul 2002

### ASELSAN Inc. (www.aselsan.com.tr)

Worked with Borland C++ IDE to develop wireless radio programming GUI applications.

## **Licenses & Certifications**

## ARAS Innovator:

- ARAS Innovator PLM Essentials Online, ARAS, May 2020
- ARAS Innovator Configuring Solutions Online, ARAS, May 2020
- ARAS Innovator Developing Solutions Online, ARAS, May 2020

## **Systems Engineering:**

- Fundamentals of Modern Systems Engineering, Georgia Institute of Technology, Atlanta, USA, Nov 2015
- Systems Engineering, PPI, Ankara, Turkey, Nov 2015
- Applied Project Management for Space Systems, TSTI, Ankara, Turkey, Oct 2014
- Applied Space Systems Engineering, TSTI, Ankara, Turkey, Oct 2014
- Verification and Validation for Space Systems, TSTI, Ankara, Turkey, Oct 2014
- Introduction to Systems Engineering, PS Consultech Inc., Ankara, Turkey, July 2013

#### SysML:

• SysML 101-Model Based Engineering Fundamentals:

Understanding SysML Models, Georgia Institute of Technology, Atlanta, USA, Nov 2015

SysML 201-Model Based Engineering Fundamentals:

Creating SysML Models, Georgia Institute of Technology, Atlanta, USA, Nov 2015

OCSMP Accelerator SysML Certification Training Online, Delligatti Associates, Jul 2014

## **Real-Time Systems:**

- ExtremeDB Real-Time Database, McObject Inc., Ankara, Turkey, July 2008
- Telelogic Rhapsody in C++, Customized Rapid Deployment Program, Telelogic Inc., Ankara, Turkey, Nov 2007
- General Purpose Platform, VxWorks Edition for New Users & Workbench 2.6 for VxWorks, WindRiver Inc., Ankara, Turkey, June 2007
- Real-Time Programming for Embedded Systems, WindRiver Inc., Ankara, Turkey, June 2007
- Real-Time Structured Analysis & Design, Project Performance International Inc., Ankara, Turkey ,June 2006

## **Object Oriented Design:**

Object Oriented Requirements Analysis & Design using UML, ACTL Inc., Ankara, Turkey, Sep 2005

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#### <u>C++:</u>

- Mastering MFC Dev. Using MS Visual C++ 6.0, Infopark Inc., Ankara, Turkey, June 2000
- C++ Programming Techniques, Technology Exchange Company, Ankara, Turkey, March 1999

# **Trainings Given**

• "IBM Rhapsody C++ Tool Training", STM Inc., {(Dec 2006, 18-hours, 9 attendees), (June 2007, 14-hours, 6 attendees), (Oct 2007, 14-hours, 3 attendees)}

• C++ Online Mentoring

Volunteer online mentoring for Middle East Technical University, Electrical and Electronics Engineering Department undergraduate students, in Fall-2010.

• C++ Classroom Training

Volunteer classroom training for 12 hours during 6 weeks for Middle East Technical University, Electrical and Electronics Engineering Department undergraduate students, in Fall-2009 and Fall-2004.

## **Skills**

Programming Languages : C++, C#

System Modeling : SysML, IBM Rhapsody Architect

PLM : ARAS Innovator

ALM : IBM DOORS, DOORS NG, Rational Team Concert, Rational Quality Manager, Rational Publishing Engine

Version Control : Git